ABSTRACT

DISSERTATION: The Identification of Cognitive Potential in Preschool-aged Children

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DATE: December 2017

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Children with exceptional cognitive potential benefit from early identification that allows for specialized learning and experiences. However, there is difficulty with cognitive assessment at the preschool age because few measures exist; existing measures are individually administered and time intensive. The objective of this study was to explore if a brief measure of cognitive ability may be curated from existing measures of cognitive ability, the DAS-II and WPPSI-IV. Results showed WPPSI-IV GAI and the DAS-II GCA scores were significantly and positively related ($r = 0.827$, $n = 97$, $p < .001$). Correlations among subtests on the DAS-II and WPPSI-IV measuring G*v*, G*c*, and G*f* were significant and positive with small to medium effect sizes, except for a few of the subtests measuring G*f*. Regression analysis demonstrated a relationship between the G*v* ($\beta = .288$, $p < .001$), Gc $\beta = .266$, $p < .006$), and G*f* ($\beta = .369$, $p < .001$) and overall IQ (F (3, 93) = 20.463, $p < .001$). These CHC factors accounted for 39.8% of the variance in overall IQ. A chi square test of association between WPPSI-IV GAI and DAS-II GCA scores in this sample (X (1) = 14.151, $p = <.001$), with a moderate effect size ($\varphi = 0.382$; $V = 0.382$) suggested that the WPPSI-IV and DAS-II identified similar groups of students. A regression equation estimating the important of processing speed in estimating overall IQ was not significant (F (1,51) = 1.156, $p < 0.287$). Implications and limitations are discussed.